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ABSTRACT

In October of 2003, then Defense Secretary Donald Rumsfeld wrote a memo to his top advisers asking how we would know whether the US was winning the Global War on Terror. This question may have been mis-timed but it was perfectly appropriate. In this paper, I use the framework of cost-benefit analysis to identify some of the issues that would need to be addressed in order to answer Rumsfeld's question. The most difficult issue is that there is no accepted definition as to what constitutes victory, or success, so there is no way to identify the ultimate benefits. Available evidence does suggest that while there are numerous identifiable sources of costs, it is far less clear where the benefits are located. The conclusion, necessarily qualitative in nature, is that the costs have been many and the benefits few.

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David Gold

Are we winning or losing the Global War on Terror?... Today, we lack metrics to know…. Are we capturing, killing or deterring and dissuading more terrorists every day than the madrassas and the radical clerics are recruiting, training and deploying against us? Secretary of Defense Donald Rumsfeld[1]

Introduction

On October 16, 2003, two years after 9/11 and six months after the US achieved its primary objective in the War in Iraq by deposing Saddam Hussein, Defense Secretary Donald Rumsfeld sent a short memo to the Department's senior leadership, Generals Richard Myers and Peter Pace, the Chairman and Deputy Chairman of the Joint Chiefs of Staff, Under Secretary of Defense Paul Wolfowitz and Assistant Secretary of Defense Douglas Feith. The memo contained a series of direct questions, 16 in all, mostly inquiring whether the US had adopted an appropriate strategy in its war on terror, whether US political and military institutions were appropriate for the tasks, and how would US leaders "know if we are winning or losing the global war on terror."[2].

The memo was leaked to the press and was widely criticized, and even ridiculed. Two years into the war on terror and six months into the War in Iraq seemed a bit late to be asking how we would know if we were winning. Such a criticism, however, obscures a more important point: Rumsfeld's questions were entirely appropriate, even if the timing was not. Wars require the extensive deployment of economic resources and since resources are scarce with alternative uses, decision-makers need to evaluate how best to use them in order to achieve their objectives. Thus, there must be some way to measure, or at least generally evaluate, the value of the resources deployed and the scope of the

[1] "Rumsfeld's war on terror memo," *USAToday*. www.usatoday.com/news/washington/executive/rumsfeld-memo.htm
[2] *ibid.*

expected benefits. In Rumsfeld's language, we need metrics to define and measure success and metrics to measure costs.

In the case of large wars, such as World War II, the anticipated benefits were so widely accepted and perceived to be so large that questions of aggregate efficiency were not high on the agenda. Later, attempts were made both in the private sector, such as at the RAND Corporation, and in the Pentagon, especially under Defense Secretary Robert MacNamara, to develop techniques and data to measure the effectiveness of specific defense programs (Enthoven and Smith, 1971).

What I would like to do in this paper is describe some of the issues that must be confronted in order to present an evaluation of US policy in what has become the primary strategic interest of the United States government, the global war on terror (GWOT).

Costs

Measured Expenditures

Calculating federal government expenditures for the main components of the GWOT is relatively straightforward, the main issue being identifying what activities of the government are directed towards the primary objective of combating terrorism (Belasco, 2007; Kosiak, 2007; Walker, 2006). The bulk of the expenditures to date have been for military activities in Afghanistan and Iraq, along with other activities of the Defense and State Departments, Homeland Security and the intelligence agencies. Less obvious are outlays of state and local governments, some of which may be funded by federal grants, and outlays of private companies, individuals, and other entities, as they take actions they see as necessary to protect themselves from the risks of terrorist actions (Hobijn and Sager, 2007).

Projected Expenditures

There are additional expenditures that are either committed for future years, are highly likely to be undertaken, or follow from present actions. The costs of replacing military equipment destroyed in combat, and of procuring greater quantities of equipment that proved to be in short supply, was not included in budgetary projections for a number of years. In the latter category, for example, are projected health-related outlays of the Department of Veterans Affairs based upon injuries sustained by members of the armed forces who serviced in combat zones (Bilmes and Stiglitz, 2006; Bilmes, 2007). There will be similar private expenditures given the large numbers of civilians employed by contractors and private military corporations who also function in combat zones.

Secondary Outlays and Incentive Effects

Some costs occur because actions taken in the GWOT affect a range of non-GWOT activities. Bilmes and Stiglitz (2006), for example, suggest that 20 to 40 per cent of the increase in world oil prices since early 2003 has been the result of an increase in perceived risk due to the war in Iraq, combined with a reduction in anticipated production from Iraq's oil fields. In another example, one analysis suggested that tighter border restrictions would raise the costs of international trade sufficiently to offset the gains from tariff reduction in the Uruguay Round of trade negotiations (Lenain et al, 2002).

Costs such as these can also have important disincentive effects. Raising the price of oil or the cost, in both outlays and time, of moving goods is equivalent to imposing a tax on the relevant activities (Kelleher, 2002). The price is higher but the quantity supplied stays the same. Unless this "tax" is offset by some other efficiency enhancing measures, the higher costs will lead to a reduction in the amount demanded, reduced output and, in the case of oil, a shift of purchasing power from buyers to sellers.

Another source of costs and possible negative incentives is the expansion of the national security bureaucracy and resulting instances of waste, inefficient decision-

making, fraud and distorted incentives. The Coalition Provisional Authority in Iraq, the Department of Defense and the Department of Homeland Security have been heavily criticized by government investigators, including the Government Accountability Office and various departmental inspectors general, by private institutions and individuals, and by members of Congress, for severe management deficiencies with respect to GWOT activities.[3] With the shift in control of Congressional committees in January 2007, there is likely to be increased Congressional oversight of costly activities. With increased emphasis on and funding for GWOT related activities, there have also been negative aspects of incentive effects. In one example, the Justice Department has reportedly been inflating its statistics of terrorist-related arrests and prosecutions, by including instances involving narcotics smuggling and immigration fraud, among others (Eggen, 2007). If these allegations are substantiated, presumably they would be attributed to the standard bureaucratic response of increasing one's visibility in an area of increased interest and funding.

Imputed Costs

A significant imputed cost is the lost output due to death and injury, both physical and emotional, from combat operations, and a shift in individual activity from civilian to military through the mobilization of National Guard and Reserve units. Since many military personnel are young, the loss of output over their projected actuarial lifetimes can be substantial (Bilmes and Stiglitz, 2006). As an example of the mobilization effect, the Governors of Louisiana and Mississippi were hampered during the Hurricane Katrina disaster as local National Guard units were severely understaffed due to Iraq War related mobilization.

Another area of imputed costs can be found in the effects of political changes brought about as part of, or in response to, the GWOT. Many have argued that restrictions in the Patriot Act and the Military Commissions Act are damaging to US

[3] For one prominent example, see the web site of the Office of the Special Inspector General for Iraq Reconstruction (SIGIR), www.sigir.mil.

traditions of due process. The US standing outside of its borders appears to have been severely damaged as a result of GWOT activities, most prominently the War in Iraq and the detentions at Abu Ghraib and Guantanamo (Regan, 2007). Such damage, of course, can be mitigated or reversed, depending on changed circumstance or shifts in a country's perceptions of its self interest. And while actions such as these are hard, if not impossible, to quantify, they certainly can be seen as potentially diminishing collective welfare.

Opportunity Costs

Opportunity costs are usually considered an alternative to expenditures as a means of measuring the costs of an activity. They need to be identified partly because they can differ from measured costs, and partly because they highlight the importance of considering alternatives. There are three general categories of opportunity costs:

First, increased expenditures for the GWOT may come at the expense of consumption expenditures, the classic guns-butter trade-off. The form this takes, and the specific categories of consumption most affected, will heavily depend on how GWOT outlays are financed. Reducing consumption expenditures, while locating where the costs occur and contributing to changes in public perceptions of well being, are not going to add much to the analysis of the costs of fighting terror beyond the dollar measures already discussed.

Second, GWOT expenditures could come at the expense of outlays for investment, including business fixed investment, residential construction, infrastructure, public and private expenditures on health and education, the primary human capital categories, and research and development. Reducing outlays in these categories could have a negative effect on future economic growth, so that the dollar cost measured this way can be higher than the dollar value of the funds shifted to the GWOT, since the present value of future lost output would need to be included.

As an example, research by Kevin Murphy and Robert Topel has sought to identify and provide estimates of the aggregate benefits from medical research specifically, and improved health and longevity in general. Many of the benefits are implicit and not subject to market valuation. If they were valued, Murphy and Topel estimate that their contribution to national wealth, which they call "health capital", would be "extremely large" and "that the economic value of these gains are enormous" (Murphy and Topel, 1999, p. 2). Reducing the growth of health-related expenditures as a means of funding the GWOT could have very large negative effects on future living standards.

Third, current and projected GWOT expenditures are derived from a particular set of activities. Alternatives are available and have been argued for. Thus, reducing GWOT outlays on current activities may not free funds for consumption and investment, but instead, may lead to alternative policies for dealing with terrorist threats. In one example, an alternative to invading Iraq was the continuation of containment and a larger anti-terrorism effort in post-Taliban Afghanistan. The relevant cost-benefit calculation would need to compare the actual policy – invasion and regime change in Iraq and its aftermath – with the most likely alternatives – continuation of containment of the Saddam Hussein regime and a larger US presence in Afghanistan (Davis et al, 2003; 2006; Bilmes and Stiglitz, 2006).

Financing

Another aspect of assessing costs is to analyze the effects of how the GWOT is being financed. The opportunity costs discussed above are also forms of financing. Military personnel and equipment have been re-allocated from other security-related tasks to the GWOT. Personnel, equipment and funds have also been shifted to the Coast Guard, the Federal Bureau of Investigation, the various intelligence gathering agencies, the Immigration and Naturalization Service, the agencies that have been combined into the Transportation Safety Administration, and other parts of the federal government, and to some extent, state and local governments.

Mostly, however, the GWOT has been financed through deficit spending. There has not been extensive monetization of the debt, as occurred, for example, during the Vietnam War, as the US has been successful in selling debt on international markets. So far, the US has avoided the inflationary pressures and interest rate rises that have accompanied other wars. There were a series of federal tax cuts in 2001 and 2003, without any tax increases after the 9/11 attacks, or during the War in Iraq. This is the first time in United States history that a major set of national security activities have been undertaken while simultaneously lowering tax rates (Ohanian, 1997).

Benefits

Assessing, and possibly measuring, the benefits from the GWOT require defining what they are. At the most general level of enhanced security, they are difficult if not impossible to measure. Security is the classic example of a public good, which by its definition -- the inability to supply the optimal amount via the market -- implies there is no market measure of what value society places on this activity. Indeed, the only measure of national defense that we have is the defense budget. But the defense budget only measures the cost of producing the goods and services that are utilized, with the implicit assumption that there are no productivity gains within this particular production process, and no measure of demand. Thus, cost is the only measure of the value of the service provided.

Wars are usually fought with a broad security objective, but with specific tactical objectives in terms of securing territory and protecting against an enemy. Success in war is often defined in terms of gaining territory, repulsing attack, defeating opposition forces, destroying or weakening an enemy's war making capacities and, ultimately, forcing a cessation of hostilities, possibly to the point of surrender. In most previous US wars there was a clear metric of success or failure, a surrender by the opposition (Revolutionary War, Civil War, Spanish American War, the two World Wars), an agreed truce (Korean War), the removal of US military and political operations (Vietnam War), or the clear dominance of the allied military forces and the imposition of terms (Gulf

War). The ending of these wars was often accompanied by popular images, such as Cornwallis' surrender at Yorktown, Lee handing his sword to Grant at Appomattox, the World War I armistice at the eleventh hour of the eleventh day of the eleventh month in 1918, Emperor Hirohito in formal attire surrendering to General MacArthur on the deck of the battleship Missouri in Tokyo Bay, and even the evacuation of the US embassy in Saigon in 1975.

But how will anyone know when the GWOT has come to a conclusion? The War in Iraq achieved a traditional milestone, the deposing of a government, in short order, but has continued for four years. In the case of global terror, who will surrender, admit defeat, or withdraw? Terror is not a government, an ideology or a political movement; it is a tactic used in a wide range of specific situations. The war metaphor appears to be counter-productive in attempting to assess the success or failure of government policies (Roberts, 2005; Regan, 2006).

An alternative, which the US government has rejected, is to see the fight against terrorist threats as having conceptual similarity to the fight against serious criminal activities. While citizens and political leaders would like to see crime reduced as much as possible, no one seriously expects crime to disappear and people, through their collective behavior, appear willing to accept a reasonably low level of criminal activity. The costs that would need to be incurred to reduce crime to near zero, such as removing many civil protections and vastly increasing expenditures on police and detention, are unlikely to be enacted. Terrorist tactics have been used for millennia and are not likely to disappear. Thus, the real question may be what level of terrorist threat is acceptable and would constitute a "victory" in the GWOT?

The Terrorist Threat[4]

One clear benefit would be to end, or reduce to acceptable levels, the threat from terrorism. Acts of terrorism impose economic costs and alter behavior as people adjust

[4] For an analysis of research on the costs of terrorism, see Frey, Luechinger and Stutzer, 2007.

when their perceptions of threat change. Thus, the economic damage to New York from the 9/11 attacks was compounded by a subsequent decline in tourism and a heightened exodus of business from the city. But while these costs were immense for those most directly affected, in the aggregate they were not large, and over a relatively short period of time, the city and regional economy has largely resumed the growth patterns that were present prior to the attack (Chernick 2005). Of course, the 9/11 attacks have been, up to now, a one-time event. Repetitive terrorist incidents may well have larger and longer lasting relative economic costs, raising the potential benefits if such attacks can be reduced or even stopped. Looking solely at economic costs from an act of terrorism and defining success as the absence of additional attacks, it is possible to obtain estimates that suggest the benefits from the GWOT have exceeded the costs (Zycher, 2003). But this seems an incomplete way of measuring both costs and benefits.

Terrorist Activities

One broad measure of success is that the United States has not been attacked since September 11, 2001, in part because of the effectiveness of elements of the GWOT in disrupting some terrorist activities. But since this war has been defined as a *global* war on terror, this is an incomplete measure. Major terrorism incidents in Madrid, London, Bali, Egypt, Thailand, and other locations, as well as the ongoing violence in Iraq, are suggestive of the continued presence of a global threat. Indeed, some research has suggested that the practice of terrorism is subject to incentives and constraints similar to the market and non-market behavior usually studied by economists (Enders and Sandler, 1993). If US policies toward homeland security have been effective in deterring further attacks, thereby raising the costs to terrorists of carrying out their actions, the groups in question would have had a greater incentive to select alternative venues and targets. At the same time, some examples of terrorism may have little to do with threats to US security, except in a much more indirect fashion. The conflict in Sri Lanka, for example, where terrorist tactics have been employed, may pose little threat to the US unless it should expand to India and contribute to greater instability in South Asia.

One possible metric is to measure the incidence of global terrorist activity. There are a number of data bases that calculate the number of terrorist incidents but there are serious problems with definitions and criteria for inclusion. Defining what counts as terrorism as opposed to other forms of political violence carried out by non-state actors, defining what counts as international terrorism, including or not including actions that have some state sponsorship, are some of these issues. Should each separate incident be given equal weight, or should there be a weighting system based, perhaps on the extent of damage, or maybe an assessment of the political consequences of the act? And, counting terrorist actions does not give information as to what caused the number to change over time: are the relevant behavioral functions that of groups that practice terrorism or of government agencies that seek to deter terrorist actions? In other words, a classic identification problem.

These problems are illustrated by the conflict in Iraq. Data indicates that the incidence of terrorist violence has been increasing. There are many definitions of terrorism but they usually emphasize that the primary targets of such violence are civilians. Iraq has become, as of the beginning of 2007, a conflict involving three distinct elements. Attacks by sub state actors on foreign military forces have usually been considered part of an insurgency directed against an occupying force. Attacks by sub state actors against civilians thought to be affiliated with other sub state actors includes elements of classic definitions of terrorism, but also of civil war. Lastly, Iraq appears to have attracted those who fit the more traditional definition of terrorist, and who joined the insurgency part to learn operational tradecraft that they feel can be applied in other situations. The point is not to debate definitions, but to indicate the difficulty in defining objectives and obtaining metrics.

Expert opinion

The absence of conventional metrics could lead to the reliance on the opinions of experts and specialists in national security generally and terrorism specifically. In one such exercise, a group of 100 security experts from across the political spectrum have been

polled twice, most recently at the end of 2006, on various questions regarding US policies on the GWOT. Their conclusions, in the aggregate, are not very positive. For example, 75 per cent of the experts surveyed, and 50 per cent of the self-identified conservatives in the sample, disagreed with the statement that the US was winning the GWOT (CAP and *Foreign Policy*, 2007).

At the end of 2005, the 9/11 commission released a "report card", evaluating each of the components of homeland security with letter grades. Converting these grades to a grade point average, and assuming each component carried equal weight, gave an overall GPA of 1.88, essentially a C- (Gold, 2006).

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Individual experts have also given evaluations of the GWOT that suggest little success. There appears to be a general consensus among specialists in universities, research institutes and government agencies that the terrorist groups the US is most concerned with, *Al Qaeda* and those that share its general ideology and practice, have been gaining in strength. Terrorism expert Bruce Hoffman, formally of RAND and currently affiliated with Georgetown University and the West Point Combating Terrorism Center, recently wrote, drawing on his testimony before a committee of the US House of Representatives, that *Al Qaeda*

> is not on the run but on the march. It has regrouped and reorganized from the setbacks it suffered from the initial phases of the global war on terrorism…. we have more to fear from this resilient organization, not less (Hoffman, 2007).

Specifically, Hoffman stated that

> Iraq [to terrorists] has been an effective means to preoccupy American military forces and distract U. S. attention while *al-Qaida* has regrouped and reorganized since the invasion of Afghanistan … (Matthews, 2007).

Conclusion

The most fundamental problem in attempting to answer Donald Rumsfeld's key question from 2003, how do we know if we are winning the GWOT, is that there is no clear definition as to what winning means and therefore no clear means of identifying the expected benefits from allocating resources to the GWOT. There have been attempts to identify progress with respect to the effectiveness of specific US actions, such as those involved in homeland security, and with respect to expert perceptions as to the nature of the threat. These evaluations are necessarily qualitative but it is hard to see how they would yield a benefit-cost ratio that exceeds one. And when costs persistently exceed benefits, economic analysis leads to the conclusion that it is time to seek alternatives.

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